

Chief, Current Support Staff, ORR

24 September 1958

THRU : Chief, Industrial Division, ORR

Chief, Electronic Equipment Branch, D/I, ORR

Review of Draft OSI Article for the Scientific Intelligence Digest

1. This draft article has been carefully read and studied. The following comments represent the opinion of the Branch:

2. As the article points out, the Chinese People's Republic (CPR), has made significant gains in the past few years in the development of a production base for electronic equipment, as well as a research and development base. We agree with the writer that this fact has not been sufficiently recognized, and that there is a need for current reporting on the subject.

3. Although we agree with the writer's assessment of the CPR's ability to gain from Western and Soviet science and technology in the field of electronics, and their undoubted growth in electronics capabilities, we cannot agree to assessment of their ability to place equipment of the most advanced design into series production. We have strong doubts as to their ability to produce even laboratory prototype copies of such items as megawatt magnetrons, low-noise tubes such as the Western Electric 416-B, masers, and many other types of equipment required for the more complex weapons systems. This capability is implied by the writer in his statement, "They are currently believed capable of adapting any type of electronic device of foreign design to the manufacturing conditions found in China."

4. The writer's comment that the Chinese communists will "almost certainly" achieve self-sufficiency in technical equipment within five years seems to us to be much broader than the facts indicate. The CPR electronics industry is being built by foreign capital, foreign technicians, and foreign technology. The primary native Chinese manufacturing conditions involved are location and skilled labor. Much of the skilled labor must be trained from scratch. A study under preparation in this Branch indicates that although they are making efforts to achieve self-sufficiency in basic components and materials to permit production of a wide variety of electronic equipment, they will probably remain dependent for several years at least upon imports from the Bloc or from the West for many types of specialized components, materials, laboratory equipment, and production machinery.

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5. We feel that the reports of proposed exports of electron tubes by the CPR are probably more of an indication of unbalanced growth than a surplus in an absolute sense. The electron tube sector of the industry has received the most support for early development, and within this sector the production of the most common receiving tube types has been emphasized. There is evidence that not all of the CPR requirements in receiving tubes can be met from domestic production, and that imports will at least balance exports. There is at present no evidence of actual shipments from China of electron tubes in any quantity. The projected export is indicated in trade agreements under negotiation in 1958 for shipments at a later date.

6. The list of production achievements could mislead the uncritical reader. In practically all of the cases cited, the equipment was of foreign design, probably built partially from imported components, and represent for the most part laboratory models rather than production in the usual sense. (In this connection the listing of facsimile equipment for Chinese characters is not understood in the Branch. Is this a standard fax system, or is it rather an individual character print out system like the Hallscriber adapted to Chinese characters?)

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